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SOME OBSERVATIONS MADE IN NORTHWESTERN SOUTH DAKOTA

By GEORGE F. WILL

THIS paper is a record of a few observations made on a trip from Bismarck, North Dakota, to Slim Buttes and Cave Hills in South Dakota. The route led in a southwesterly direction from Bismarck to the forks of Grand river, thence almost westerly up the south fork until Slim Buttes were reached. These buttes lie about 60 miles from the boundary of Montana and South Dakota, and about 40 miles from the boundary of North Dakota and South Dakota. To the northwestward of them, and just south of the line between the two Dakotas, lie Cave Hills, some 35 miles away. Near the Montana line to the westward flows the Little Missouri river, along which the Bad Lands extend from the North Dakota and South Dakota line almost to the point where the river empties into the Missouri.

The whole region traversed was long claimed by the Sioux, and the Standing Rock reservation at one time included the land within a few miles of the eastern side of Slim Buttes. Slim Buttes and Cave Hills formed a veritable paradise for the hunter in the old days, as also did the Bad Lands proper. Elk, deer (both black tail and white), mountain sheep, and porcupine abounded in the hills, while the more level stretches teemed with antelope. Here also came Indians from all the Missouri river tribes to get the war-eagle feathers for their headdresses; consequently this region is well known to the neighboring tribes, and many of its places are localized in their traditions. Several Indians have told of gold found in hidden creeks, among others in a creek flowing northward from Eagle's Nest hills into the north fork of Grand river. Again the same story is told of a small creek at the northern end of Slim Buttes. Here, too, they relate how their fathers dug lead out of the creek-bed.

It seems probable that there should be very much of archeolog-

ical interest in the region, but, so far as known to the writer, it is almost a virgin field for this kind of exploration. The trip taken through the region was a rather hasty one, yet enough was observed to arouse a desire for further research.

The first archeological feature noted was the presence on hills here and there of cairns, some only two feet high, others four or five feet, and always roughly cylindrical in shape. Usually these cairns are in pairs, either on neighboring hills or on opposite ends of the same ridge. With the party was Mr Otis A. Tye, at one

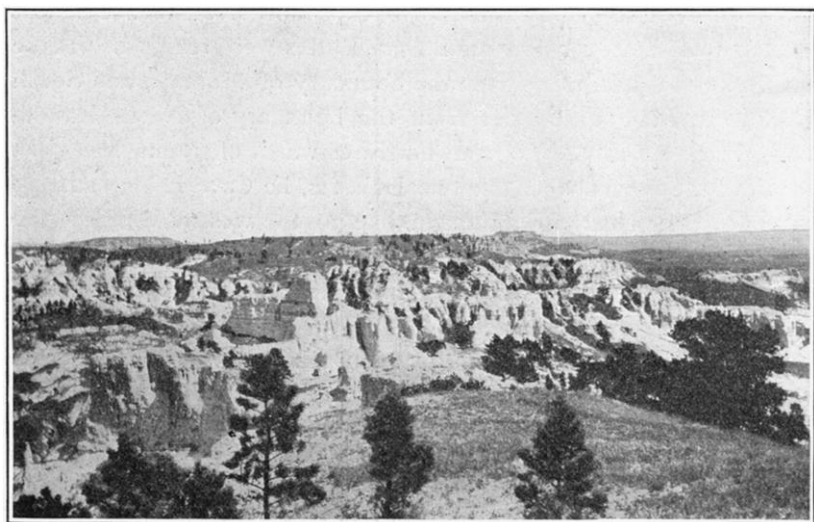


FIG. 58. — The general character of Slim Buttes.

time a trapper and hunter, who speaks the Dakota language. Mr Tye says that he has often questioned the Indians as to the significance of these cairns, and the answer has always been that they mark points from which water can be located. This explanation held true in every instance in which it was tested ; in fact each pair of cairns seems to give the most complete outlook possible for many miles : one hill gives a perfect view for a half circle or more, and the other completes the circle.

The first cairn observed stands alone on the crest of a ridge, known as the Oak Coolie (*coulée*) hills, only a couple of hundred yards

from the old Black Hills trail. This one commands the view of a full circle, consequently there is not a second cairn. The second observation hill noted is about three miles northeast of Flasher, North Dakota, where extends a ridge, some 300 yards long, with a cairn at each end, built evidently of stones picked up near by, as the hill is very rocky. These cairns are about four feet high, and on turning over the loose stones at their bases flint chips in considerable quantities were noticed.

The next cairn we approached near enough for investigation stands on the point of a bluff on the south side of the Cannonball river, and commands the valley both up and down for many miles. This, too, has many flint flakes and chips scattered around its base. About half a mile to the south stands another cairn on a high hill, completing the circle of view. Other cairns were observed at intervals, but only once at close range. There is a pair occupying two sharp-pointed buttes about 600 yards apart, some seven miles southeast of Cave Hills.

Slim Buttes, the next region visited, are really a single ridge, some 25 miles long and from half a mile to three miles across. Rising suddenly to a height of several hundred feet, and dotted here and there with pines, they furnish a sharp contrast to the slightly rolling sage-brush country around them. The buttes are chiefly of white sandstone, covered only at intervals with soil, and seamed with deep rugged gulches and cañons. The western side forms an almost unbroken precipice, extending out into many sharp points.

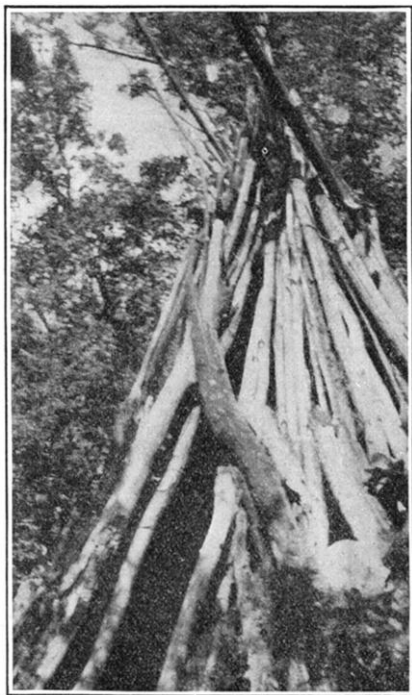


FIG. 59. — Remains of lodge, with buffalo skull, on Slim Buttes.

The sandstone in spots is very rich in fossils, especially of some species of land tortoise. Springs flow from the rocks in many places, affording excellent camping places, and even now game is plentiful. The war-eagle nests on the higher peaks, and the spurs running out on the western wall furnish ideal places for the capture of this bird. Figure 58 shows the general character of the buttes.

Little time was spent at Slim Buttes, but some points of archeological interest were observed and a number of broken arrowheads were picked up on the surface. Two old pits were discovered here which have been used for eagle catching. The pits are hollowed out of the weathered sandstone to a depth of about three feet and a half, and have a length of about four feet and a width of two. Scattered about the bottom and around the openings are pieces of small sticks about half an inch in diameter, which had probably been used as a covering for the pit. The method of taking these birds has been so often described that repetition is unnecessary. Most of the writers, however, say that the bird was killed, whereas Mr Joe Taylor, who lived among all the Missouri river tribes for years, states in his book, *Twenty Years on the Trap Line*, that the eagles were plucked of their tail-feathers and then liberated. Both of the pits found are on the very tips of points jutting from the western wall, with precipitous faces on both sides.

Another object observed at Slim Buttes is of considerable interest. It is a ruined Indian lodge of the common tipi shape, but substantially built. It is about ten feet in diameter and some twelve feet high. Instead of consisting of a mere framework covered with skins however, the substructure was solidly built of aspen poles, from an inch to three inches in diameter, laid close together. Over these sticks are the much-decayed remains of a straw or grass covering, over which had been placed earth to a thickness of several inches. The earth however, for the greater part, has washed off. The interior had evidently been excavated to a depth of twelve to eighteen inches when the lodge was built. Within, just back of the center, the ashes of the fireplace can still be seen, and also a buffalo skull with traces of painting in colors on the frontal. In the accompanying photograph (fig. 59) this skull is shown placed outside the stakes.

The age of the lodge is hard to determine, but Mr Tye stated that he had first seen it twenty years ago, and that the earth had begun to wash off at that time. The site chosen for it is an excellent one for a winter camp. It stands in the main bed level of a washed-out gulch, completely surrounded and hidden by an aspen thicket. The original bed had been again washed out just west of the lodge site to a depth of fifteen or twenty feet, and here, immediately below the lodge, a spring of delicious water flows out of the bank. Earthen lodges were the typical habitations of the Arikara, Mandan, and Hidatsa Indians, rather than of the Sioux.

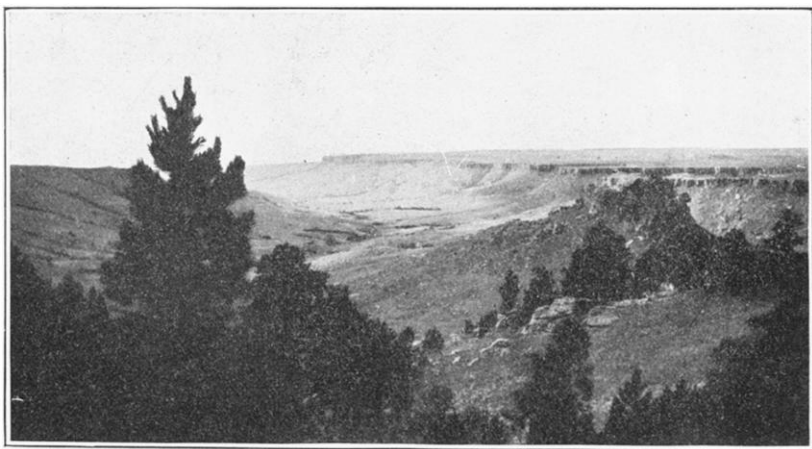


FIG. 60. — General view of Cave Hills.

Cave Hills was the next point of interest visited. The general appearance is as if the hills had originally formed a single flat-topped circular mass, rising some three hundred or four hundred feet. This mass was afterward eroded, leaving a number of steep-sided, flat-bottomed valleys, with flat-topped ridges between, all of the same altitude. Throughout the valleys flow creeks bordered with patches of brush. The lower slopes of the hills are bare, but toward the summits and also on the flat tops the Black Hills pine grows in considerable abundance. About ninety feet from the level summits, on all the hills, there is a break in the slope, and here a nearly perpendicular wall of rather soft sandstone,

in alternate layers of brownish yellow and red, crowns and completes the elevation.

Throughout all the hills the elements have worn the sandstone wall full of pockets, caves, and caverns. Some of these are large enough only to accommodate a bird's nest, others have been used for refuge by small herds of cattle, while in still others men have left their traces. This feature gives the hills their name.

The observations here recorded were made on the ridge about two miles directly south of a small ranch, Ludlow post-office, in which ridge is situated what is called "Big Cave."

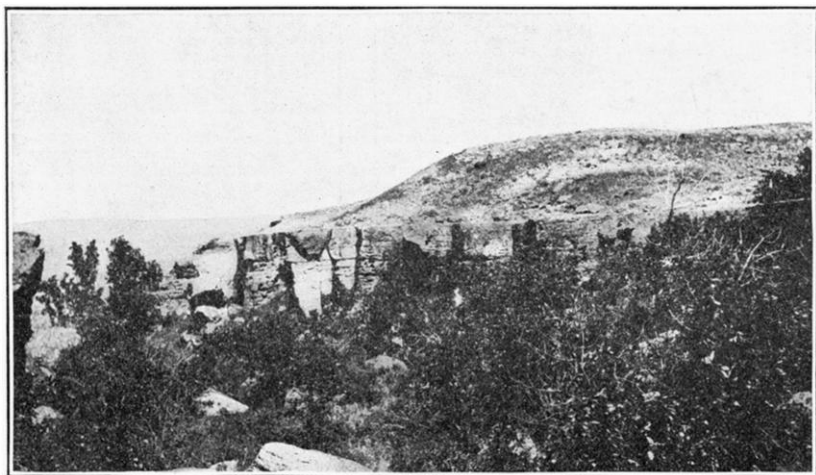


FIG. 61.— Gulch in which Big Cave is situated.

The first object noted was an effigy, possibly of a turtle. This is situated on a small flat bench on the lower slope of the ridge, and not far above the dry creek bed. It is about 30 feet long by 15 feet or 18 feet wide, and was constructed by outlining the figure with whitish boulders from eight inches to a foot in diameter and one to two feet apart. The figure lies in a north-and-south direction, but it is difficult to determine which is the head. The shape is shown in figure 62.

In one of the larger and deeper pockets at the base of the cliff a small piece of black pottery and a few flint chips were uncovered

from the sand of the floor, but nothing else was found. The sherd, a fragment of the rim of a vessel, resembles the pottery of the sedentary Missouri river tribes.

At the Big Cave and in its neighborhood were found the most interesting objects. The cave is situated on the northern side of the ridge, in a gulch filled with huge blocks of sandstone that formerly roofed a larger cavern. The entrance is in the eastern face of the gulch, and not many years ago was like the rest of the bowl-shaped pockets, with an overhanging curtain of stone in front. This has fallen in rather recently, partly blocking the entrance and carrying down part of the original surface of the side walls with it. The real cave is a sort of narrow crevice running back from this pocket entrance for many hundred feet, but it is only at the entrance that the petroglyphs to be described occur.

On the northern side of the cave entrance, and within 20 or 30 yards, is a mound, manifestly artificial, consisting of large quantities of stones averaging from three to five inches through. The mound is about 10 feet in diameter, nearly round, and about three feet high at the highest point, in the center.

The walls of the entrance to the cave were at one time completely covered with carvings and scratchings in the soft sandstone. The collapse of the overhang in front, however, has carried almost all of these with it. By kneeling down and peering in among the huge blocks of stone it can be seen that large numbers of the carvings are still intact, though buried under tons of sandstone blocks.

These petroglyphs can be broadly divided into three kinds, not counting the light scratchings here and there. The largest number

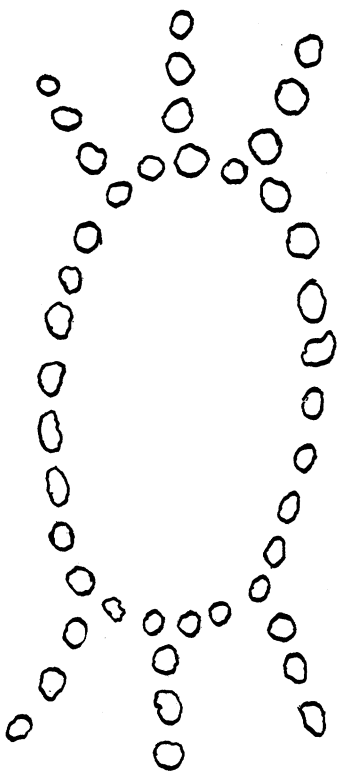


FIG. 62. — Effigy outline of stones.

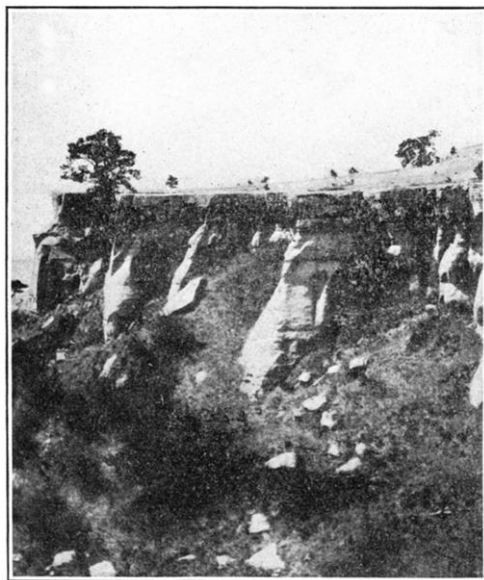


FIG. 63. — The sandstone pockets in Cave Hills.

considerable difficulty. These petroglyphs are carved much more deeply than those previously described. Both types show traces of painting, principally in red, yellow, and blue.

Of a third variety of petroglyphs Mr Tye gave more information than could be gleaned in the cave, as he had visited the spot some years ago, prior to the fall of the roof. Only a few fragmentary examples remain, but these are suffi-

of those still on the walls were designed to represent animals of various kinds, as the deer and the dog, and also crude human figures, the general appearance approximating that of the figures painted on Indian record blankets.

Another type consists of what appear to be conventional symbols. Of this type only two good examples were seen ; these were photographed successfully and then removed with con-

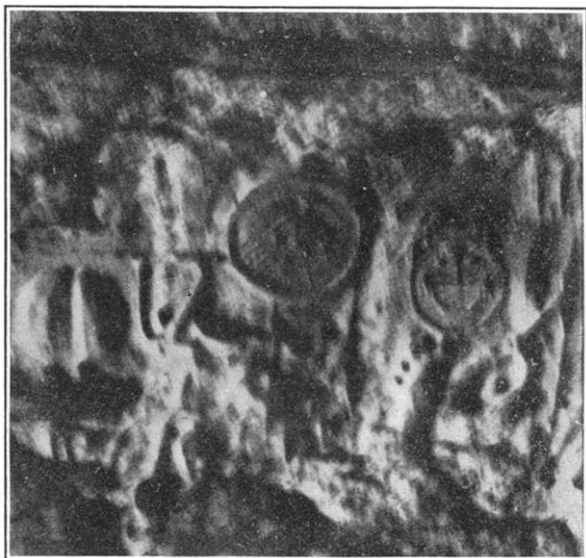


FIG. 64. — Petroglyphs in Big Cave.

cient to show that they once represented human heads in strong bas-relief, placed, so far as seen, on some point jutting out of the wall or on the angles where the opening of the cave commenced. The portions of heads that remain are farther back than the other carvings, consequently a good photograph could not be obtained. This is unfortunate, as the few examples remaining are mutilated and likely to crumble away very soon. Mr Tye states that on his

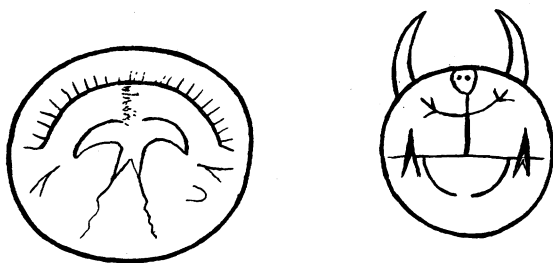


FIG. 65. — Details of petroglyphs in Big Cave.

former visit there was a considerable number of these heads in perfect condition, but these have all gone down with the fallen walls and roof. With sufficient time and proper implements some of the heads, as well as other interesting carvings, could be rescued from beneath the fallen mass.

Owing to the short time spent in the region, this brief report is necessarily superficial, but if it should arouse an interest which will lead to a careful exploration, it will have served its purpose.

BISMARCK, NORTH DAKOTA.